

Please add new claims 31-39 as set forth below. Please cancel claims 1-26 and 28-30 without prejudice, as being drawn to non-elected inventions. Upon entry of the present amendment, the status of the claims will be as set forth below in the listing of claims. The listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

Claims 1-26 (Canceled).

27. (Original) An optical irradiation device comprising a plurality of LEDs and a heat pipe to cool the LEDs.

Claims 28-30 (Canceled).

31. (New) An optical irradiation device comprising one or more LEDs for emitting radiation, the one or more LEDs thermally connected to a heat pipe, said pipe conducting heat away from the one or more LEDs.

32. (New) The optical irradiation device according to claim 31 further comprising a thermal connector positioned between the one or more LEDs and the heat pipe.

33. (New) The optical irradiation device according to claim 31 further comprising a fan or Peltier device proximate to the heat pipe.

34. (New) The optical device irradiation device according to claim 31 further comprising a heat sink in thermal contact with the heat pipe.

35. (New) The optical irradiation device according to claim 33, further comprising a heat sink in thermal contact with the heat pipe.
36. (New) The optical irradiation device according to claim 31, wherein the heat pipe provides a means for cooling the LEDs thereby providing for the one or more LEDs to be driven to produce more radiation.
37. (New) The optical irradiation device according to claim 31, further comprising a plurality of LEDs formed into one or more clusters.
38. (New) The optical irradiation device according to claim 31, further comprising a plurality of LEDs formed into one or more arrays.
39. (New) The optical irradiation device according to claim 31, wherein the one or more LEDs are thermally connected to two or more heat pipes.